

## **APPENDIX A**

### **Repair Order Summaries**

## APPENDIX A

### Repair Order Summaries

The maintenance activities performed on CleanFleet Vehicles are detailed in Tables A-2 through A-7. The contents of each report are described below. Each report aggregates the maintenance information according to the five categories shown in Table A-1.

**Table A-1. Maintenance Report Categories**

Category	ATA System Codes	Description
All	000 - 092	All repairs except for accidents and fuel contamination related repairs
Selected ATA	All codes listed below	Summation of three groups below. These are the ATA codes judged most likely to be “fuel-related”
Instruments	003	Instrument ATA codes
Electrical Group	030 - 035	All electrical group ATA codes
Engine/Fuel	040 - 048	All engine and fuel system ATA codes

Table A-2 summarizes the amount of preventative maintenance (PM) accomplished on each vehicle fleet. This work consists mainly of oil changes and other such scheduled activities, but also includes other items such as some brake changes. One would not expect to see a large difference between the alternative-fueled vehicles and their control counterparts.

Table A-3 shows the number of non-preventative maintenance (non-PM) repair orders needed for each vehicle fleet. Non-PM repairs are accomplished in response to a *perceived* problem with the vehicle. Someone decides that a mechanic should examine the vehicle to determine the nature of the problem and repair the vehicle before returning it to service. The alternative fuel vehicles, being new and different, may have received more attention than the control vehicles (i.e., the personnel dealing with these vehicles may have been more sensitive to discrepancies from expected behavior than they were with the unleaded vehicles). The degree to which this additional attention affected the number of repair actions requested is unknown. However, there is little reason to believe that the degree of extra attention given to the alternative fuel vehicles significantly varied from one fleet to another. The possible exception to this observation would involve the RFG fleets, since RFG may have been viewed as just “a different kind of gasoline.”

Table A-4 summarizes the labor hours devoted to non-PM repair orders for each vehicle fleet. An analysis of the labor hours per 10,000 miles shows that the alternative fuel fleets generally required more overall non-PM maintenance labor than the unleaded control vehicles. Also, the maintenance labor in the selected ATA code category were much higher for the alternative fuel vehicles than for the control vehicles. A single exception to both of these trends is demonstrated by the overall maintenance labor for the Ford RFG fleet.

Table A-5 summarizes the labor costs for non-PM repair orders for each vehicle fleet. An analysis of the labor cost per 10,000 miles shows that the alternative fuel fleets generally required more overall non-PM maintenance labor than the unleaded control vehicles. Also, the maintenance labor cost in the selected ATA code category were much higher for the alternative fuel vehicles than for the control vehicles. A single exception to both of these trends is demonstrated by the overall maintenance labor for the Ford RFG fleet.

Table A-6 summarizes the cost of parts for non-PM repair orders for each vehicle fleet. An analysis of the parts cost per 10,000 miles shows that the alternative fuel fleets generally had higher parts cost for overall non-PM maintenance than the unleaded control vehicles. Also, the parts cost in the selected ATA code category were much higher for the alternative fuel vehicles than for the control vehicles. Exceptions to both of these trends are demonstrated by the overall cost of parts for the Ford RFG fleet. Also, the Chevrolet and Dodge RFG fleets show higher cost of parts for all non-PM maintenance actions than for those in the selected ATA code category.

Table A-7 summarizes the total cost for non-PM repair orders for each vehicle fleet. An analysis of the total cost per 10,000 miles shows that the alternative fuel fleets generally had higher total cost for overall non-PM maintenance than the unleaded control vehicles. Also, the total cost in the selected ATA code category was much higher for the alternative fuel vehicles than for the control vehicles. Exceptions to both of these trends are demonstrated by the overall total cost for the Ford RFG fleet. Also, the Chevrolet RFG fleet shows a higher total cost for all non-PM maintenance actions than for those in the selected ATA code category.

**Table A-2. Preventive Maintenance (PM) Summary**

Vehicle OEM	Fuel Type	No. of Vans	Average Service Days per Van	Average Miles Driven per Van	System <sup>(a)</sup>	Average PMs per Van	Average Service Days per PM	Average Miles Driven per PM	Average Labor Hours per PM	Average Labor Cost per PM	Average Parts Cost per PM
<b>Irvine</b>											
Chevrolet	CNG	7	441	26,812	All	8.6	51	3,128	3.2	68.3	22.4
					Selected ATA Codes	8.3	53	3,236	0.0	0.0	4.1
					Instruments	0.0	–	–	0.0	0.0	0.0
					Electrical Group	0.0	–	–	0.0	0.0	0.0
					Engine/Fuel	8.3	53	3,236	0.0	0.0	4.1
	Unleaded	3	573	39,663	All	9.0	64	4,407	3.2	65.3	33.8
					Selected ATA Codes	9.0	64	4,407	0.0	0.0	3.6
					Instruments	0.0	–	–	0.0	0.0	0.0
					Electrical Group	0.0	–	–	0.0	0.0	0.0
					Engine/Fuel	9.0	64	4,407	0.0	0.0	3.6
Dodge	CNG	7	460	22,639	All	8.6	54	2,641	3.0	62.8	18.1
					Selected ATA Codes	8.0	57	2,830	0.0	0.0	5.7
					Instruments	0.0	–	–	0.0	0.0	0.0
					Electrical Group	0.3	1,610	79,238	0.0	0.0	1.8
					Engine Fuel	8.0	57	2,830	0.0	0.0	3.9
	Unleaded	3	544	42,685	All	9.7	56	4,416	3.4	68.2	17.5
					Selected ATA Codes	9.0	60	4,743	0.0	0.0	5.7
					Instruments	0.0	–	–	0.0	0.0	0.0
					Electrical Group	0.3	1,633	128,055	0.0	0.0	1.9
					Engine/Fuel	9.0	60	4,743	0.0	0.0	3.9

**VEHICLE MAINTENANCE**

<sup>(a)</sup> All systems include ATA system codes 000 through 079.  
 Instruments include ATA system code 003.  
 Electrical Group includes ATA system codes 030 through 035.  
 Engine/Fuel systems include ATA system codes 040 through 048.

**Table A-2. Preventive Maintenance (PM) Summary (Continued)**

Vehicle OEM	Fuel Type	No. of Vans	Average Service Days per Van	Average Miles Driven per Van	System <sup>(a)</sup>	Average PMs per Van	Average Service Days per PM	Average Miles Driven per PM	Average Labor Hours per PM	Average Labor Cost per PM	Average Parts Cost per PM
Ford	CNG	7	455	29,533	All	8.1	56	3,627	3.4	69.7	21.1
					Selected ATA Codes	8.1	56	3,627	0.0	0.5	6.7
					Instruments	0.0	–	–	0.0	0.0	0.0
					Electrical Group	0.4	1,061	68,910	0.0	0.2	1.2
					Engine/Fuel	8.1	56	3,627	0.0	0.3	5.5
	Unleaded	3	630	39,439	All	9.3	68	4,226	3.4	66.8	22.2
					Selected ATA Codes	9.0	70	4,382	0.0	0.0	5.3
					Instruments	0.0	–	–	0.0	0.0	0.0
					Electrical Group	0.0	–	–	0.0	0.0	0.0
					Engine/Fuel	9.0	70	4,382	0.0	0.0	5.3
Los Angeles											
Chevrolet	RFG	7	608	19,740	All	9.1	66	2,159	3.1	68.0	31.5
					Selected ATA Codes	7.9	77	2,512	0.1	1.5	2.7
					Instruments	0.1	4,253	138,181	0.0	0.6	0.0
					Electrical Group	0.1	4,253	138,181	0.0	0.2	0.0
					Engine/Fuel	7.9	77	2,512	0.0	0.8	2.7
	Unleaded	3	660	16,176	All	9.3	71	1,733	3.2	69.2	28.0
					Selected ATA Codes	7.3	90	2,206	0.5	9.6	12.3
					Instruments	0.7	991	24,264	0.1	1.9	0.5
					Electrical Group	1.3	495	12,132	0.3	7.0	9.4
					Engine/Fuel	7.0	94	2,311	0.0	0.7	2.5

<sup>(a)</sup> All systems include ATA system codes 000 through 079.  
 Instruments include ATA system code 003.  
 Electrical Group includes ATA system codes 030 through 035.  
 Engine/Fuel systems include ATA system codes 040 through 048.

**Table A-2. Preventive Maintenance (PM) Summary (Continued)**

Vehicle OEM	Fuel Type	No. of Vans	Average Service Days per Van	Average Miles Driven per Van	System <sup>(a)</sup>	Average PMs per Van	Average Service Days per PM	Average Miles Driven per PM	Average Labor Hours per PM	Average Labor Cost per PM	Average Parts Cost per PM
Dodge	RFG	7	605	18,246	All	8.9	68	2,060	3.2	69.3	21.7
					Selected ATA Codes	7.7	78	2,365	0.0	0.9	4.0
					Instruments	0.0	–	–	0.0	0.0	0.0
					Electrical Group	0.7	847	25,545	0.0	0.7	1.0
					Engine/Fuel	7.7	78	2,365	0.0	0.2	3.0
	Unleaded	3	607	25,697	All	9.3	65	2,753	3.5	75.6	51.8
					Selected ATA Codes	8.3	73	3,084	0.0	0.4	2.8
					Instruments	0.0	–	–	0.0	0.0	0.0
					Electrical Group	0.3	1,822	77,090	0.0	0.4	0.0
					Engine/Fuel	8.3	73	3,084	0.0	0.0	2.8
Ford	RFG	7	648	20,984	All	9.3	70	2,260	3.0	65.5	33.1
					Selected ATA Codes	8.1	80	2,577	0.0	0.3	4.7
					Instruments	0.0	–	–	0.0	0.0	0.0
					Electrical Group	0.3	2,269	73,444	0.0	0.3	1.8
					Engine/Fuel	8.1	80	2,577	0.0	0.0	2.9
	Unleaded	3	647	18,944	All	9.7	67	1,960	3.0	66.7	15.1
					Selected ATA Codes	9.0	72	2,105	0.1	1.8	3.8
					Instruments	0.0	–	–	0.0	0.0	0.0
					Electrical Group	1.0	647	18,944	0.1	1.2	0.5
					Engine/Fuel	8.7	75	2,186	0.0	0.7	3.3

VEHICLE MAINTENANCE

<sup>(a)</sup> All systems include ATA system codes 000 through 079.  
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Electrical Group includes ATA system codes 030 through 035.  
Engine/Fuel systems include ATA system codes 040 through 048.

Table A-2. Preventive Maintenance (PM) Summary (Continued)

Vehicle OEM	Fuel Type	No. of Vans	Average Service Days per Van	Average Miles Driven per Van	System <sup>(a)</sup>	Average PMs per Van	Average Service Days per PM	Average Miles Driven per PM	Average Labor Hours per PM	Average Labor Cost per PM	Average Parts Cost per PM
<b>Rialto</b>											
Chevrolet	PRO	7	432	35,519	All	8.4	51	4,214	2.6	60.6	21.7
					Selected ATA Codes	8.4	51	4,214	0.1	2.2	5.5
					Instruments	0.0	–	–	0.0	0.0	0.0
					Electrical Group	1.6	275	22,603	0.1	1.9	1.3
					Engine/Fuel	8.4	51	4,214	0.0	0.4	4.2
	Unleaded	3	502	38,758	All	9.0	56	4,306	3.2	70.9	60.2
					Selected ATA Codes	9.0	56	4,306	0.4	7.5	13.9
					Instruments	0.0	–	–	0.0	0.0	0.0
					Electrical Group	2.7	188	14,534	0.3	6.8	9.7
					Engine/Fuel	9.0	56	4,306	0.0	0.7	4.3
Ford	PRO	13	522	39,521	All	9.0	58	4,391	2.9	67.2	42.6
					Selected ATA Codes	8.9	59	4,429	0.2	4.2	16.3
					Instruments	0.0	–	–	0.0	0.0	0.0
					Electrical Group	1.6	323	24,465	0.1	3.1	10.0
					Engine/Fuel	8.9	59	4,429	0.0	1.1	6.2
	Unleaded	3	572	42,452	All	8.7	66	4,898	2.9	66.9	54.2
					Selected ATA Codes	8.7	66	4,898	0.2	4.2	10.8
					Instruments	0.0	–	–	0.0	0.0	0.0
					Electrical Group	1.0	572	42,452	0.1	2.5	1.7
					Engine/Fuel	8.7	66	4,898	0.1	1.7	9.1

<sup>(a)</sup> All systems include ATA system codes 000 through 079.  
 Instruments include ATA system code 003.  
 Electrical Group includes ATA system codes 030 through 035.  
 Engine/Fuel systems include ATA system codes 040 through 048.

**Table A-2. Preventive Maintenance (PM) Summary (Continued)**

Vehicle OEM	Fuel Type	No. of Vans	Average Service Days per Van	Average Miles Driven per Van	System <sup>(a)</sup>	Average PMs per Van	Average Service Days per PM	Average Miles Driven per PM	Average Labor Hours per PM	Average Labor Cost per PM	Average Parts Cost per PM
<b>Santa Ana</b>											
Ford	M-85	20	521	24,969	All	8.1	64	3,083	2.8	55.1	30.6
					Selected ATA Codes	8.1	64	3,083	0.0	0.7	11.0
					Instruments	0.0	–	–	0.0	0.0	0.0
					Electrical Group	0.7	802	38,413	0.0	0.7	6.6
					Engine/Fuel	8.1	64	3,083	0.0	0.0	4.5
	Unleaded	3	595	25,221	All	9.0	66	2,802	2.8	55.4	18.9
					Selected ATA Codes	9.0	66	2,802	0.0	0.0	4.8
					Instruments	0.0	–	–	0.0	0.0	0.0
					Electrical Group	0.0	–	–	0.0	0.0	0.0
					Engine/Fuel	9.0	66	2,802	0.0	0.0	4.8

VEHICLE MAINTENANCE

<sup>(a)</sup> All systems include ATA system codes 000 through 079.  
Instruments include ATA system code 003.  
Electrical Group includes ATA system codes 030 through 035.  
Engine/Fuel systems include ATA system codes 040 through 048.



**Table A-3. Non-PM Repair Orders<sup>(a)</sup>**

Vehicle OEM	Fuel Type	System <sup>(b)</sup>	Total Non-PM ROs	Average ROs per Van	Average ROs per 10,000 Miles	Average ROs per 100 Service Days	Average Service Days per Non-PM RO	Average Miles Driven per Non-PM RO
<b>Irvine</b>								
Chevrolet	CNG	All	367	52.4	19.6	11.9	8	511
		Selected ATA Codes	183	26.1	9.8	5.9	17	1,026
		Instruments	5	0.7	0.3	0.2	618	37,536
		Electrical Group	117	16.7	6.2	3.8	26	1,604
		Engine/Fuel	78	11.1	4.2	2.5	40	2,406
	Unleaded	All	144	48.0	12.1	8.4	12	826
		Selected ATA Codes	36	12.0	3.0	2.1	48	3,305
		Instruments	4	1.3	0.3	0.2	430	29,748
		Electrical Group	25	8.3	2.1	1.5	69	4,760
		Engine/Fuel	11	3.7	0.9	0.6	156	10,817
Dodge	CNG	All	383	54.7	24.2	11.9	8	414
		Selected ATA Codes	185	26.4	11.7	5.7	17	857
		Instruments	16	2.3	1.0	0.5	201	9,905
		Electrical Group	88	12.6	5.6	2.7	37	1,801
		Engine/Fuel	87	12.4	5.5	2.7	37	1,822
	Unleaded	All	180	60.0	14.1	11.0	9	711
		Selected ATA Codes	57	19.0	4.5	3.5	29	2,247
		Instruments	5	1.7	0.4	0.3	327	25,611
		Electrical Group	31	10.3	2.4	1.9	53	4,131
		Engine/Fuel	21	7.0	1.6	1.3	78	6,098

<sup>(a)</sup> See Table B-2 for number of vans, service days, and miles driven.

<sup>(b)</sup> All systems include ATA system codes 000 through 079.

Instruments include ATA system code 003.

Electrical Group includes ATA system codes 030 through 035.

Engine/Fuel systems include ATA system codes 040 through 048.

**Table A-3. Non-PM Repair Orders<sup>(a)</sup> (Continued)**

Vehicle OEM	Fuel Type	System <sup>(b)</sup>	Total Non-PM ROs	Average ROs per Van	Average ROs per 10,000 Miles	Average ROs per 100 Service Days	Average Service Days per Non-PM RO	Average Mile Driven per Non-PM RO
Ford	CNG	All	319	45.6	15.4	10.0	10	648
		Selected ATA Codes	157	22.4	7.6	4.9	20	1,317
		Instruments	17	2.4	0.8	0.5	187	12,161
		Electrical Group	73	10.4	3.5	2.3	44	2,832
		Engine/Fuel	74	10.6	3.6	2.3	43	2,794
	Unleaded	All	144	48.0	12.2	7.6	13	822
		Selected ATA Codes	50	16.7	4.2	2.6	38	2,366
		Instruments	2	0.7	0.2	0.1	946	59,158
		Electrical Group	45	15.0	3.8	2.4	42	2,629
		Engine/Fuel	3	1.0	0.3	0.2	630	39,439
Los Angeles								
Chevrolet	RFG	All	295	42.1	21.3	6.9	14	468
		Selected ATA Codes	110	15.7	8.0	2.6	39	1,256
		Instruments	4	0.6	0.3	0.1	1,063	34,545
		Electrical Group	103	14.7	7.5	2.4	41	1,342
		Engine/Fuel	13	1.9	0.9	0.3	327	10,629
	Unleaded	All	115	38.3	23.7	5.8	17	422
		Selected ATA Codes	44	14.7	9.1	2.2	45	1,103
		Instruments	4	1.3	0.8	0.2	495	12,132
		Electrical Group	35	11.7	7.2	1.8	57	1,386
		Engine/Fuel	6	2.0	1.2	0.3	330	8,088

<sup>(a)</sup> See Table B-2 for number of vans, service days, and miles driven.

<sup>(b)</sup> All systems include ATA system codes 000 through 079.

Instruments include ATA system code 003.

Electrical Group includes ATA system codes 030 through 035.

Engine/Fuel systems include ATA system codes 040 through 048.

**Table A-3. Non-PM Repair Orders<sup>(a)</sup> (Continued)**

Vehicle OEM	Fuel Type	System <sup>(b)</sup>	Total Non-PM ROs	Average ROs per Van	Average ROs per 10,000 Miles	Average ROs per 100 Service Days	Average Service Days per Non-PM RO	Average Miles Driven per Non-PM RO
Dodge	RFG	All	207	29.6	16.2	4.9	20	617
		Selected ATA Codes	75	10.7	5.9	1.8	56	1,703
		Instruments	9	1.3	0.7	0.2	471	14,192
		Electrical Group	59	8.4	4.6	1.4	72	2,165
		Engine/Fuel	10	1.4	0.8	0.2	424	12,772
	Unleaded	All	116	38.7	15.0	6.4	16	665
		Selected ATA Codes	32	10.7	4.2	1.8	57	2,409
		Instruments	0	0.0	0.0	0.0	–	–
		Electrical Group	31	10.3	4.0	1.7	59	2,487
		Engine/Fuel	1	0.3	0.1	0.1	1,822	77,090
Ford	RFG	All	241	34.4	16.4	5.3	19	609
		Selected ATA Codes	118	16.9	8.0	2.6	38	1,245
		Instruments	1	0.1	0.1	0.0	4,538	146,887
		Electrical Group	112	16.0	7.6	2.5	41	1,311
		Engine/Fuel	6	0.9	0.4	0.1	756	24,481
	Unleaded	All	121	40.3	21.3	6.2	16	470
		Selected ATA Codes	54	18.0	9.5	2.8	36	1,052
		Instruments	1	0.3	0.2	0.1	1,941	56,833
		Electrical Group	50	16.7	8.8	2.6	39	1,137
		Engine/Fuel	3	1.0	0.5	0.2	647	18,944

<sup>(a)</sup> See Table B-2 for number of vans, service days, and miles driven.

<sup>(b)</sup> All systems include ATA system codes 000 through 079.

Instruments include ATA system code 003.

Electrical Group includes ATA system codes 030 through 035.

Engine/Fuel systems include ATA system codes 040 through 048.

**Table A-3. Non-PM Repair Orders<sup>(a)</sup> (Continued)**

Vehicle OEM	Fuel Type	System <sup>(b)</sup>	Total Non-PM ROs	Average ROs per Van	Average ROs per 10,000 Miles	Average ROs per 100 Service Days	Average Service Days per Non-PM RO	Average Miles Driven per Non-PM RO
<b>Rialto</b>								
Chevrolet	PRO	All	465	66.4	18.7	15.4	6	535
		Selected ATA Codes	164	23.4	6.6	5.4	18	1,516
		Instruments	3	0.4	0.1	0.1	1,007	82,879
		Electrical Group	75	10.7	3.0	2.5	40	3,315
		Engine/Fuel	104	14.9	4.2	3.4	29	2,391
	Unleaded	All	183	61.0	15.7	12.1	8	635
		Selected ATA Codes	53	17.7	4.6	3.5	28	2,194
		Instruments	3	1.0	0.3	0.2	502	38,758
		Electrical Group	30	10.0	2.6	2.0	50	3,876
		Engine/Fuel	22	7.3	1.9	1.5	69	5,285
Ford	PRO	All	648	49.8	12.6	9.5	10	793
		Selected ATA Codes	254	19.5	4.9	3.7	27	2,023
		Instruments	12	0.9	0.2	0.2	566	42,814
		Electrical Group	104	8.0	2.0	1.5	65	4,940
		Engine/Fuel	139	10.7	2.7	2.0	49	3,696
	Unleaded	All	148	49.3	11.6	8.6	12	861
		Selected ATA Codes	53	17.7	4.2	3.1	32	2,403
		Instruments	3	1.0	0.2	0.2	572	42,452
		Electrical Group	34	11.3	2.7	2.0	50	3,746
		Engine/Fuel	16	5.3	1.3	0.9	107	7,960

<sup>(a)</sup> See Table B-2 for number of vans, service days, and miles driven.

<sup>(b)</sup> All systems include ATA system codes 000 through 079.

Instruments include ATA system code 003.

Electrical Group includes ATA system codes 030 through 035.

Engine/Fuel systems include ATA system codes 040 through 048.

**Table A-3. Non-PM Repair Orders<sup>(a)</sup> (Continued)**

Vehicle OEM	Fuel Type	System <sup>(b)</sup>	Total Non-PM ROs	Average ROs per Van	Average ROs per 10,000 Miles	Average ROs per 100 Service Days	Average Service Days per Non-PM RO	Average Miles Driven per Non-PM RO
<b>Santa Ana</b>								
Ford	M-85	All	649	32.5	13.0	6.2	16	769
		Selected ATA Codes	264	13.2	5.3	2.5	39	1,892
		Instruments	38	1.9	0.8	0.4	274	13,141
		Electrical Group	142	7.1	2.8	1.4	73	3,517
		Engine/Fuel	92	4.6	1.8	0.9	113	5,428
	Unleaded	All	79	26.3	10.4	4.4	23	958
		Selected ATA Codes	31	10.3	4.1	1.7	58	2,441
		Instruments	7	2.3	0.9	0.4	255	10,809
		Electrical Group	23	7.7	3.0	1.3	78	3,290
		Engine/Fuel	2	0.7	0.3	0.1	892	37,832

<sup>(a)</sup> See Table B-2 for number of vans, service days, and miles driven.

<sup>(b)</sup> All systems include ATA system codes 000 through 079.

Instruments include ATA system code 003.

Electrical Group includes ATA system codes 030 through 035.

Engine/Fuel systems include ATA system codes 040 through 048.

**Table A-4. Non-PM Labor Hours<sup>(a)</sup>**

Vehicle OEM	Fuel Type	System <sup>(b)</sup>	Total Non-PM ROs	Average Labor Hours per Van	Average Labor Hours per Non-PM ROs	Average Labor Hours per 10,000 Miles	Average Labor Hours per 100 Service Days
Irvine							
Chevrolet	CNG	All	367	52.8	1.0	19.7	12.0
		Selected ATA Codes	183	28.4	1.1	10.6	6.4
		Instruments	5	0.2	0.3	0.1	0.1
		Electrical Group	117	9.3	0.6	3.5	2.1
		Engine/Fuel	78	18.9	1.7	7.0	4.3
	Unleaded	All	144	49.8	1.0	12.6	8.7
		Selected ATA Codes	36	8.7	0.7	2.2	1.5
		Instruments	4	0.8	0.6	0.2	0.1
		Electrical Group	25	3.4	0.4	0.9	0.6
		Engine/Fuel	11	4.5	1.2	1.1	0.8
Dodge	CNG	All	383	68.7	1.3	30.4	14.9
		Selected ATA Codes	185	36.9	1.4	16.3	8.0
		Instruments	16	1.9	0.8	0.8	0.4
		Electrical Group	88	6.1	0.5	2.7	1.3
		Engine/Fuel	87	28.9	2.3	12.8	6.3
	Unleaded	All	180	70.0	1.2	16.4	12.9
		Selected ATA Codes	57	16.9	0.9	4.0	3.1
		Instruments	5	0.3	0.2	0.1	0.1
		Electrical Group	31	6.9	0.7	1.6	1.3
		Engine/Fuel	21	9.7	1.4	2.3	1.8

<sup>(a)</sup> See Table B-2 for number of vans, service days, and miles driven.

<sup>(b)</sup> All systems include ATA system codes 000 through 079.

Instruments include ATA system code 003.

Electrical Group includes ATA system codes 030 through 035.

Engine/Fuel systems include ATA system codes 040 through 048.

**Table A-4. Non-PM Labor Hours<sup>(a)</sup> (Continued)**

Vehicle OEM	Fuel Type	System <sup>(b)</sup>	Total Non-PM ROs	Average Labor Hours per Van	Average Labor Hours per Non-PM ROs	Average Labor Hours per 10,000 Miles	Average Labor Hours per 100 Service Days
Ford	CNG	All	319	39.7	0.9	13.4	8.7
		Selected ATA Codes	157	15.0	0.7	5.1	3.3
		Instruments	17	1.4	0.6	0.5	0.3
		Electrical Group	73	5.0	0.5	1.7	1.1
		Engine/Fuel	74	8.7	0.8	2.9	1.9
	Unleaded	All	144	32.6	0.7	8.3	5.2
		Selected ATA Codes	50	8.6	0.5	2.2	1.4
		Instruments	2	0.1	0.1	0.0	0.0
		Electrical Group	45	7.7	0.5	1.9	1.2
		Engine/Fuel	3	0.8	0.8	0.2	0.1
Los Angeles							
Chevrolet	RFG	All	295	50.8	1.2	25.7	8.4
		Selected ATA Codes	110	18.6	1.2	9.4	3.1
		Instruments	4	2.0	3.6	1.0	0.3
		Electrical Group	103	13.9	0.9	7.0	2.3
		Engine/Fuel	13	2.7	1.4	1.4	0.4
	Unleaded	All	115	27.9	0.7	17.3	4.2
		Selected ATA Codes	44	6.9	0.5	4.2	1.0
		Instruments	4	0.7	0.5	0.4	0.1
		Electrical Group	35	5.3	0.5	3.3	0.8
		Engine/Fuel	6	0.8	0.4	0.5	0.1

<sup>(a)</sup> See Table B-2 for number of vans, service days, and miles driven.

<sup>(b)</sup> All systems include ATA system codes 000 through 079.

Instruments include ATA system code 003.

Electrical Group includes ATA system codes 030 through 035.

Engine/Fuel systems include ATA system codes 040 through 048.

**Table A-4. Non-PM Labor Hours<sup>(a)</sup> (Continued)**

Vehicle OEM	Fuel Type	System <sup>(b)</sup>	Total Non-PM ROs	Average Labor Hours per Van	Average Labor Hours per Non-PM ROs	Average Labor Hours per 10,000 Miles	Average Labor Hours per 100 Service Days
Dodge	RFG	All	207	51.1	1.7	28.0	8.4
		Selected ATA Codes	75	12.7	1.2	7.0	2.1
		Instruments	9	2.4	1.9	1.3	0.4
		Electrical Group	59	6.6	0.8	3.6	1.1
		Engine/Fuel	10	3.7	2.6	2.0	0.6
	Unleaded	All	116	52.5	1.4	20.4	8.6
		Selected ATA Codes	32	5.6	0.5	2.2	0.9
		Instruments	0	0.0	–	0.0	0.0
		Electrical Group	31	5.6	0.5	2.2	0.9
		Engine/Fuel	1	0.0	0.0	0.0	0.0
Ford	RFG	All	241	36.4	1.1	17.3	5.6
		Selected ATA Codes	118	12.2	0.7	5.8	1.9
		Instruments	1	0.1	0.5	0.0	0.0
		Electrical Group	112	11.3	0.7	5.4	1.7
		Engine/Fuel	6	0.8	1.0	0.4	0.1
	Unleaded	All	121	46.2	1.1	24.4	7.1
		Selected ATA Codes	54	9.9	0.6	5.2	1.5
		Instruments	1	0.2	0.5	0.1	0.0
		Electrical Group	50	9.3	0.6	4.9	1.4
		Engine/Fuel	3	0.4	0.4	0.2	0.1

<sup>(a)</sup> See Table B-2 for number of vans, service days, and miles driven.

<sup>(b)</sup> All systems include ATA system codes 000 through 079.

Instruments include ATA system code 003.

Electrical Group includes ATA system codes 030 through 035.

Engine/Fuel systems include ATA system codes 040 through 048.



**Table A-4. Non-PM Labor Hours<sup>(a)</sup> (Continued)**

Vehicle OEM	Fuel Type	System <sup>(b)</sup>	Total Non-PM ROs	Average Labor Hours per Van	Average Labor Hours per Non-PM ROs	Average Labor Hours per 10,000 Miles	Average Labor Hours per 100 Service Days
<b>Rialto</b>							
Chevrolet	PRO	All	465	93.6	1.4	26.4	21.7
		Selected ATA Codes	164	41.5	1.8	11.7	9.6
		Instruments	3	0.1	0.3	0.0	0.0
		Electrical Group	75	8.7	0.8	2.5	2.0
		Engine/Fuel	104	32.7	2.2	9.2	7.6
	Unleaded	All	183	63.2	1.0	16.3	12.6
		Selected ATA Codes	53	15.8	0.9	4.1	3.1
		Instruments	3	1.0	1.0	0.3	0.2
		Electrical Group	30	6.6	0.7	1.7	1.3
		Engine/Fuel	22	8.2	1.1	2.1	1.6
Ford	PRO	All	648	50.6	1.0	12.8	9.7
		Selected ATA Codes	254	23.9	1.2	6.0	4.6
		Instruments	12	0.5	0.5	0.1	0.1
		Electrical Group	104	4.4	0.6	1.1	0.9
		Engine/Fuel	139	18.9	1.8	4.8	3.6
	Unleaded	All	148	34.7	0.7	8.2	6.1
		Selected ATA Codes	53	11.7	0.7	2.7	2.0
		Instruments	3	0.8	0.8	0.2	0.1
		Electrical Group	34	6.5	0.6	1.5	1.1
		Engine/Fuel	16	4.4	0.8	1.0	0.8

<sup>(a)</sup> See Table B-2 for number of vans, service days, and miles driven.

<sup>(b)</sup> All systems include ATA system codes 000 through 079.

Instruments include ATA system code 003.

Electrical Group includes ATA system codes 030 through 035.

Engine/Fuel systems include ATA system codes 040 through 048.

**Table A-4. Non-PM Labor Hours<sup>(a)</sup> (Continued)**

Vehicle OEM	Fuel Type	System <sup>(b)</sup>	Total Non-PM ROs	Average Labor Hours per Van	Average Labor Hours per Non-PM ROs	Average Labor Hours per 10,000 Miles	Average Labor Hours per 100 Service Days
Santa Ana							
Ford	M-85	All	649	32.9	1.0	13.2	6.3
		Selected ATA Codes	264	11.5	0.9	4.6	2.2
		Instruments	38	0.9	0.5	0.4	0.2
		Electrical Group	142	3.8	0.5	1.5	0.7
		Engine/Fuel	92	6.8	1.5	2.7	1.3
	Unleaded	All	79	26.3	1.0	10.4	4.4
		Selected ATA Codes	31	6.6	0.6	2.6	1.1
		Instruments	7	2.6	1.1	1.0	0.4
		Electrical Group	23	3.4	0.4	1.4	0.6
		Engine/Fuel	2	0.6	0.9	0.2	0.1

<sup>(a)</sup> See Table B-2 for number of vans, service days, and miles driven.

<sup>(b)</sup> All systems include ATA system codes 000 through 079.

Instruments include ATA system code 003.

Electrical Group includes ATA system codes 030 through 035.

Engine/Fuel systems include ATA system codes 040 through 048.

Table A-5. Non-PM Labor Costs<sup>(a)</sup>

Vehicle OEM	Fuel Type	System <sup>(b)</sup>	Total Non-PM ROs	Average Labor Cost per Van	Average Labor Cost per Non-PM RO	Average Labor Cost per 10,000 Miles	Average Labor Cost per 100 Service Days
Irvine							
Chevrolet	CNG	All	367	1093.3	20.9	407.8	247.7
		Selected ATA Codes	183	579.5	22.2	216.1	131.3
		Instruments	5	4.4	6.1	1.6	1.0
		Electrical Group	117	194.8	11.7	72.6	44.1
		Engine/Fuel	78	380.4	34.1	141.9	86.2
	Unleaded	All	144	1028.3	21.4	259.3	179.4
		Selected ATA Codes	36	177.7	14.8	44.8	31.0
		Instruments	4	15.4	11.6	3.9	2.7
		Electrical Group	25	71.4	8.6	18.0	12.5
		Engine/Fuel	11	90.9	24.8	22.9	15.9
Dodge	CNG	All	383	1413.3	25.8	624.3	307.3
		Selected ATA Codes	185	754.7	28.6	333.4	164.1
		Instruments	16	37.7	16.5	16.6	8.2
		Electrical Group	88	133.8	10.6	59.1	29.1
		Engine/Fuel	87	583.2	46.9	257.6	126.8
	Unleaded	All	180	1432.4	23.9	335.6	263.2
		Selected ATA Codes	57	350.1	18.4	82.0	64.3
		Instruments	5	6.0	3.6	1.4	1.1
		Electrical Group	31	145.9	14.1	34.2	26.8
		Engine/Fuel	21	198.2	28.3	46.4	36.4

<sup>(a)</sup> See Table B-2 for number of vans, service days, and miles driven.

<sup>(b)</sup> All systems include ATA system codes 000 through 079.

Instruments include ATA system code 003.

Electrical Group includes ATA system codes 030 through 035.

Engine/Fuel systems include ATA system codes 040 through 048.

**Table A-5. Non-PM Labor Costs<sup>(a)</sup> (Continued)**

Vehicle OEM	Fuel Type	System <sup>(b)</sup>	Total Non-PM ROs	Average Labor Cost per Van	Average Labor Cost per Non-PM RO	Average Labor Cost per 10,000 Miles	Average Labor Cost per 100 Service Days
Ford	CNG	All	319	834.5	18.3	282.6	183.6
		Selected ATA Codes	157	322.8	14.4	109.3	71.0
		Instruments	17	27.0	11.1	9.1	5.9
		Electrical Group	73	107.4	10.3	36.4	23.6
		Engine/Fuel	74	188.4	17.8	63.8	41.4
	Unleaded	All	144	687.1	14.3	174.2	109.0
		Selected ATA Codes	50	189.8	11.4	48.1	30.1
		Instruments	2	1.6	2.5	0.4	0.3
		Electrical Group	45	171.8	11.5	43.6	27.2
		Engine/Fuel	3	16.4	16.4	4.2	2.6
Los Angeles							
Chevrolet	RFG	All	295	1080.9	25.6	547.6	177.9
		Selected ATA Codes	110	381.4	24.3	193.2	62.8
		Instruments	4	41.1	71.8	20.8	6.8
		Electrical Group	103	285.3	19.4	144.5	47.0
		Engine/Fuel	13	55.1	29.7	27.9	9.1
	Unleaded	All	115	631.3	16.5	390.3	95.6
		Selected ATA Codes	44	150.0	10.2	92.7	22.7
		Instruments	4	13.9	10.5	8.6	2.1
		Electrical Group	35	116.9	10.0	72.3	17.7
		Engine/Fuel	6	19.1	9.6	11.8	2.9

<sup>(a)</sup> See Table B-2 for number of vans, service days, and miles driven.

<sup>(b)</sup> All systems include ATA system codes 000 through 079.

Instruments include ATA system code 003.

Electrical Group includes ATA system codes 030 through 035.

Engine/Fuel systems include ATA system codes 040 through 048.

**Table A-5. Non-PM Labor Costs<sup>(a)</sup> (Continued)**

Vehicle OEM	Fuel Type	System <sup>(b)</sup>	Total Non-PM ROs	Average Labor Cost per Van	Average Labor Cost per Non-PM RO	Average Labor Cost per 10,000 Miles	Average Labor Cost per 100 Service Days
Dodge	RFG	All	207	1086.4	36.7	595.4	179.6
		Selected ATA Codes	75	265.2	24.8	145.4	43.8
		Instruments	9	50.2	39.0	27.5	8.3
		Electrical Group	59	139.9	16.6	76.7	23.1
		Engine/Fuel	10	75.2	52.6	41.2	12.4
	Unleaded	All	116	1094.0	28.3	425.7	180.1
		Selected ATA Codes	32	117.0	11.0	45.5	19.3
		Instruments	0	0.0	–	0.0	0.0
		Electrical Group	31	117.0	11.3	45.5	19.3
		Engine/Fuel	1	0.0	0.0	0.0	0.0
Ford	RFG	All	241	799.8	23.2	381.2	123.4
		Selected ATA Codes	118	270.6	16.1	128.9	41.7
		Instruments	1	1.8	12.7	0.9	0.3
		Electrical Group	112	251.9	15.7	120.0	38.8
		Engine/Fuel	6	16.9	19.7	8.1	2.6
	Unleaded	All	121	998.3	24.8	526.9	154.3
		Selected ATA Codes	54	218.0	12.1	115.1	33.7
		Instruments	1	3.3	9.8	1.7	0.5
		Electrical Group	50	205.0	12.3	108.2	31.7
		Engine/Fuel	3	9.7	9.7	5.1	1.5

<sup>(a)</sup> See Table B-2 for number of vans, service days, and miles driven.

<sup>(b)</sup> All systems include ATA system codes 000 through 079.

Instruments include ATA system code 003.

Electrical Group includes ATA system codes 030 through 035.

Engine/Fuel systems include ATA system codes 040 through 048.

**Table A-5. Non-PM Labor Costs<sup>(a)</sup> (Continued)**

Vehicle OEM	Fuel Type	System <sup>(b)</sup>	Total Non-PM ROs	Average Labor Cost per Van	Average Labor Cost per Non-PM RO	Average Labor Cost per 10,000 Miles	Average Labor Cost per 100 Service Days
<b>Rialto</b>							
Chevrolet	PRO	All	465	1980.1	29.8	557.5	458.9
		Selected ATA Codes	164	850.6	36.3	239.5	197.1
		Instruments	3	2.1	4.9	0.6	0.5
		Electrical Group	75	190.8	17.8	53.7	44.2
		Engine/Fuel	104	657.7	44.3	185.2	152.4
	Unleaded	All	183	1358.0	22.3	350.4	270.3
		Selected ATA Codes	53	334.7	18.9	86.4	66.6
		Instruments	3	19.9	19.9	5.1	4.0
		Electrical Group	30	141.1	14.1	36.4	28.1
		Engine/Fuel	22	173.7	23.7	44.8	34.6
Ford	PRO	All	648	1075.4	21.6	272.1	205.9
		Selected ATA Codes	254	494.2	25.3	125.0	94.6
		Instruments	12	9.3	10.1	2.3	1.8
		Electrical Group	104	103.6	12.9	26.2	19.8
		Engine/Fuel	139	381.3	35.7	96.5	73.0
	Unleaded	All	148	766.7	15.5	180.6	134.0
		Selected ATA Codes	53	261.2	14.8	61.5	45.7
		Instruments	3	15.0	15.0	3.5	2.6
		Electrical Group	34	152.9	13.5	36.0	26.7
		Engine/Fuel	16	93.4	17.5	22.0	16.3

<sup>(a)</sup> See Table B-2 for number of vans, service days, and miles driven.

<sup>(b)</sup> All systems include ATA system codes 000 through 079.

Instruments include ATA system code 003.

Electrical Group includes ATA system codes 030 through 035.

Engine/Fuel systems include ATA system codes 040 through 048.

Table A-5. Non-PM Labor Costs<sup>(a)</sup> (Continued)

Vehicle OEM	Fuel Type	System <sup>(b)</sup>	Total Non-PM ROs	Average Labor Cost per Van	Average Labor Cost per Non-PM RO	Average Labor Cost per 10,000 Miles	Average Labor Cost per 100 Service Days
Santa Ana							
Ford	M-85	All	649	659.3	20.3	264.1	126.5
		Selected ATA Codes	264	229.1	17.4	91.8	43.9
		Instruments	38	18.5	9.7	7.4	3.6
		Electrical Group	142	74.6	10.5	29.9	14.3
		Engine/Fuel	92	136.0	29.6	54.5	26.1
	Unleaded	All	79	532.5	20.2	211.1	89.5
		Selected ATA Codes	31	130.8	12.7	51.9	22.0
		Instruments	7	51.5	22.1	20.4	8.6
		Electrical Group	23	67.2	8.8	26.6	11.3
		Engine/Fuel	2	12.2	18.3	4.8	2.0

<sup>(a)</sup> See Table B-2 for number of vans, service days, and miles driven.

<sup>(b)</sup> All systems include ATA system codes 000 through 079.

Instruments include ATA system code 003.

Electrical Group includes ATA system codes 030 through 035.

Engine/Fuel systems include ATA system codes 040 through 048.

Table A-6. Non-PM Parts Costs<sup>(a)</sup>

Vehicle OEM	Fuel Type	System <sup>(b)</sup>	Total Non-PM ROs	Average Parts Cost per Van	Average Parts Cost per Non-PM RO	Average Parts Cost per 10,000 Miles	Average Parts Cost per 100 Service Days
Irvine							
Chevrolet	CNG	All	367	2138.9	40.8	797.7	484.6
		Selected ATA Codes	183	1522.8	58.3	568.0	345.0
		Instruments	5	2.3	3.2	0.8	0.5
		Electrical Group	117	269.8	16.1	100.6	61.1
		Engine/Fuel	78	1250.7	112.2	466.5	283.3
	Unleaded	All	144	1324.3	27.6	333.9	231.0
		Selected ATA Codes	36	632.0	52.7	159.3	110.2
		Instruments	4	14.3	10.7	3.6	2.5
		Electrical Group	25	305.8	36.7	77.1	53.3
		Engine/Fuel	11	311.9	85.1	78.6	54.4
Dodge	CNG	All	383	1926.2	35.2	850.8	418.8
		Selected ATA Codes	185	1179.5	44.6	521.0	256.5
		Instruments	16	14.1	6.2	6.2	3.1
		Electrical Group	88	236.4	18.8	104.4	51.4
		Engine/Fuel	87	929.0	74.7	410.3	202.0
	Unleaded	All	180	2637.2	44.0	617.8	484.5
		Selected ATA Codes	57	379.4	20.0	88.9	69.7
		Instruments	5	0.0	0.0	0.0	0.0
		Electrical Group	31	181.1	17.5	42.4	33.3
		Engine/Fuel	21	198.4	28.3	46.5	36.4

<sup>(a)</sup> See Table B-2 for number of vans, service days, and miles driven.

<sup>(b)</sup> All systems include ATA system codes 000 through 079.

Instruments include ATA system code 003.

Electrical Group includes ATA system codes 030 through 035.

Engine/Fuel systems include ATA system codes 040 through 048.



**Table A-6. Non-PM Parts Costs<sup>(a)</sup> (Continued)**

Vehicle OEM	Fuel Type	System <sup>(b)</sup>	Total Non-PM ROs	Average Parts Cost per Van	Average Parts Cost per Non-PM RO	Average Parts Cost per 10,000 Miles	Average Parts Cost per 100 Service Days
Ford	CNG	All	319	1197.8	26.3	405.6	263.5
		Selected ATA Codes	157	462.5	20.6	156.6	101.7
		Instruments	17	7.1	2.9	2.4	1.6
		Electrical Group	73	121.0	11.6	41.0	26.6
		Engine/Fuel	74	334.4	31.6	113.2	73.6
	Unleaded	All	144	889.0	18.5	225.4	141.0
		Selected ATA Codes	50	249.8	15.0	63.3	39.6
		Instruments	2	0.0	0.0	0.0	0.0
		Electrical Group	45	248.0	16.5	62.9	39.3
		Engine/Fuel	3	1.8	1.8	0.5	0.3
Los Angeles							
Chevrolet	RFG	All	295	859.4	20.4	435.3	141.5
		Selected ATA Codes	110	271.6	17.3	137.6	44.7
		Instruments	4	4.5	7.8	2.3	0.7
		Electrical Group	103	247.1	16.8	125.2	40.7
		Engine/Fuel	13	20.1	10.8	10.2	3.3
	Unleaded	All	115	326.5	8.5	201.9	49.4
		Selected ATA Codes	44	109.1	7.4	67.4	16.5
		Instruments	4	0.0	0.0	0.0	0.0
		Electrical Group	35	78.0	6.7	48.2	11.8
		Engine/Fuel	6	31.1	15.5	19.2	4.7

<sup>(a)</sup> See Table B-2 for number of vans, service days, and miles driven.

<sup>(b)</sup> All systems include ATA system codes 000 through 079.

Instruments include ATA system code 003.

Electrical Group includes ATA system codes 030 through 035.

Engine/Fuel systems include ATA system codes 040 through 048.

**Table A-6. Non-PM Parts Costs<sup>(a)</sup> (Continued)**

Vehicle OEM	Fuel Type	System <sup>(b)</sup>	Total Non-PM ROs	Average Parts Cost per Van	Average Parts Cost per Non-PM RO	Average Parts Cost per 10,000 Miles	Average Parts Cost per 100 Service Days
Dodge	RFG	All	207	662.2	22.4	362.9	109.4
		Selected ATA Codes	75	120.4	11.2	66.0	19.9
		Instruments	9	21.2	16.5	11.6	3.5
		Electrical Group	59	51.9	6.2	28.4	8.6
		Engine/Fuel	10	47.4	33.2	26.0	7.8
	Unleaded	All	116	423.0	10.9	164.6	69.6
		Selected ATA Codes	32	108.7	10.2	42.3	17.9
		Instruments	0	0.0	–	0.0	0.0
		Electrical Group	31	107.2	10.4	41.7	17.6
		Engine/Fuel	1	1.5	4.5	0.6	0.2
Ford	RFG	All	241	363.1	10.5	173.1	56.0
		Selected ATA Codes	118	160.2	9.5	76.3	24.7
		Instruments	1	0.0	0.0	0.0	0.0
		Electrical Group	112	148.4	9.3	70.7	22.9
		Engine/Fuel	6	11.8	13.8	5.6	1.8
	Unleaded	All	121	532.7	13.2	281.2	82.3
		Selected ATA Codes	54	154.0	8.6	81.3	23.8
		Instruments	1	0.0	0.0	0.0	0.0
		Electrical Group	50	154.0	9.2	81.3	23.8
		Engine/Fuel	3	0.0	0.0	0.0	0.0

<sup>(a)</sup> See Table B-2 for number of vans, service days, and miles driven.

<sup>(b)</sup> All systems include ATA system codes 000 through 079.

Instruments include ATA system code 003.

Electrical Group includes ATA system codes 030 through 035.

Engine/Fuel systems include ATA system codes 040 through 048.

**Table A-6. Non-PM Parts Costs<sup>(a)</sup> (Continued)**

Vehicle OEM	Fuel Type	System <sup>(b)</sup>	Total Non-PM ROs	Average Parts Cost per Van	Average Parts Cost per Non-PM RO	Average Parts Cost per 10,000 Miles	Average Parts Cost per 100 Service Days
<b>Rialto</b>							
Chevrolet	PRO	All	465	4882.6	73.5	1374.6	1131.5
		Selected ATA Codes	164	2577.0	110.0	725.5	597.2
		Instruments	3	0.0	0.0	0.0	0.0
		Electrical Group	75	450.2	42.0	126.8	104.3
		Engine/Fuel	104	2126.8	143.1	598.8	492.9
	Unleaded	All	183	3402.7	55.8	877.9	677.3
		Selected ATA Codes	53	741.9	42.0	191.4	147.7
		Instruments	3	27.7	27.7	7.2	5.5
		Electrical Group	30	271.1	27.1	69.9	54.0
		Engine/Fuel	22	443.1	60.4	114.3	88.2
Ford	PRO	All	648	1170.1	23.5	296.1	224.1
		Selected ATA Codes	254	520.6	26.6	131.7	99.7
		Instruments	12	0.0	0.0	0.0	0.0
		Electrical Group	104	89.2	11.2	22.6	17.1
		Engine/Fuel	139	431.4	40.3	109.2	82.6
	Unleaded	All	148	765.0	15.5	180.2	133.7
		Selected ATA Codes	53	234.6	13.3	55.3	41.0
		Instruments	3	0.0	0.0	0.0	0.0
		Electrical Group	34	118.2	10.4	27.8	20.7
		Engine/Fuel	16	116.4	21.8	27.4	20.3

<sup>(a)</sup> See Table B-2 for number of vans, service days, and miles driven.

<sup>(b)</sup> All systems include ATA system codes 000 through 079.

Instruments include ATA system code 003.

Electrical Group includes ATA system codes 030 through 035.

Engine/Fuel systems include ATA system codes 040 through 048.

**Table A-6. Non-PM Parts Costs<sup>(a)</sup> (Continued)**

Vehicle OEM	Fuel Type	System <sup>(b)</sup>	Total Non-PM ROs	Average Parts Cost per Van	Average Parts Cost per Non-PM RO	Average Parts Cost per 10,000 Miles	Average Parts Cost per 100 Service Days
<b>Santa Ana</b>							
Ford	M-85	All	649	1086.2	33.5	435.0	208.3
		Selected ATA Codes	264	735.1	55.7	294.4	141.0
		Instruments	38	10.3	5.4	4.1	2.0
		Electrical Group	142	119.3	16.8	47.8	22.9
		Engine/Fuel	92	605.5	131.6	242.5	116.1
	Unleaded	All	79	494.7	18.8	196.2	83.2
		Selected ATA Codes	31	121.3	11.7	48.1	20.4
		Instruments	7	0.0	0.0	0.0	0.0
		Electrical Group	23	119.3	15.6	47.3	20.0
		Engine/Fuel	2	2.1	3.1	0.8	0.3

<sup>(a)</sup> See Table B-2 for number of vans, service days, and miles driven.

<sup>(b)</sup> All systems include ATA system codes 000 through 079.

Instruments include ATA system code 003.

Electrical Group includes ATA system codes 030 through 035.

Engine/Fuel systems include ATA system codes 040 through 048.

Table A-7. Non-PM Total Costs<sup>(a)</sup>

Vehicle OEM	Fuel Type	System <sup>(b)</sup>	Total Non-PM ROs	Average Total Cost per Van	Average Total Cost per Non-PM RO	Average Total Cost per 10,000 Miles	Average Total Cost per 100 Service Days
Irvine							
Chevrolet	CNG	All	367	3232.2	61.6	1205.5	732.2
		Selected ATA Codes	183	2102.3	80.4	784.1	476.3
		Instruments	5	6.6	9.3	2.5	1.5
		Electrical Group	117	464.6	27.8	173.3	105.3
		Engine/Fuel	78	1631.1	146.4	608.4	369.5
	Unleaded	All	144	2352.6	49.0	593.2	410.4
		Selected ATA Codes	36	809.7	67.5	204.1	141.2
		Instruments	4	29.7	22.3	7.5	5.2
		Electrical Group	25	377.2	45.3	95.1	65.8
		Engine/Fuel	11	402.8	109.8	101.5	70.3
Dodge	CNG	All	383	3339.5	61.0	1475.1	726.1
		Selected ATA Codes	185	1934.2	73.2	854.3	420.5
		Instruments	16	51.8	22.7	22.9	11.3
		Electrical Group	88	370.2	29.4	163.5	80.5
		Engine/Fuel	87	1512.2	121.7	668.0	328.8
	Unleaded	All	180	4069.6	67.8	953.4	747.7
		Selected ATA Codes	57	729.6	38.4	170.9	134.0
		Instruments	5	6.0	3.6	1.4	1.1
		Electrical Group	31	327.0	31.6	76.6	60.1
		Engine/Fuel	21	396.5	56.6	92.9	72.9

<sup>(a)</sup> See Table B-2 for number of vans, service days, and miles driven.

<sup>(b)</sup> All systems include ATA system codes 000 through 079.

Instruments include ATA system code 003.

Electrical Group includes ATA system codes 030 through 035.

Engine/Fuel systems include ATA system codes 040 through 048.

**Table A-7. Non-PM Total Costs<sup>(a)</sup> (Continued)**

Vehicle OEM	Fuel Type	System <sup>(b)</sup>	Total Non-PM ROs	Average Total Cost per Van	Average Total Cost per Non-PM RO	Average Total Cost per 10,000 Miles	Average Total Cost per 100 Service Days
Ford	CNG	All	319	2032.3	44.6	688.1	447.0
		Selected ATA Codes	157	785.3	35.0	265.9	172.8
		Instruments	17	34.2	14.1	11.6	7.5
		Electrical Group	73	228.4	21.9	77.3	50.2
		Engine/Fuel	74	522.8	49.5	177.0	115.0
	Unleaded	All	144	1576.1	32.8	399.6	250.0
		Selected ATA Codes	50	439.6	26.4	111.5	69.7
		Instruments	2	1.6	2.5	0.4	0.3
		Electrical Group	45	419.8	28.0	106.4	66.6
		Engine/Fuel	3	18.2	18.2	4.6	2.9
Los Angeles							
Chevrolet	RFG	All	295	1940.3	46.0	982.9	319.4
		Selected ATA Codes	110	653.0	41.6	330.8	107.5
		Instruments	4	45.5	79.7	23.1	7.5
		Electrical Group	103	532.3	36.2	269.7	87.6
		Engine/Fuel	13	75.1	40.5	38.1	12.4
	Unleaded	All	115	957.9	25.0	592.2	145.1
		Selected ATA Codes	44	259.1	17.7	160.2	39.2
		Instruments	4	13.9	10.5	8.6	2.1
		Electrical Group	35	194.9	16.7	120.5	29.5
		Engine/Fuel	6	50.2	25.1	31.0	7.6

<sup>(a)</sup> See Table B-2 for number of vans, service days, and miles driven.

<sup>(b)</sup> All systems include ATA system codes 000 through 079.

Instruments include ATA system code 003.

Electrical Group includes ATA system codes 030 through 035.

Engine/Fuel systems include ATA system codes 040 through 048.

**Table A-7. Non-PM Total Costs<sup>(a)</sup> (Continued)**

Vehicle OEM	Fuel Type	System <sup>(b)</sup>	Total Non-PM ROs	Average Total Cost per Van	Average Total Cost per Non-PM RO	Average Total Cost per 10,000 Miles	Average Total Cost per 100 Service Days
Dodge	RFG	All	207	1748.6	59.1	958.3	289.0
		Selected ATA Codes	75	385.6	36.0	211.4	63.7
		Instruments	9	71.4	55.5	39.1	11.8
		Electrical Group	59	191.7	22.7	105.1	31.7
		Engine/Fuel	10	122.5	85.8	67.1	20.3
	Unleaded	All	116	1517.0	39.2	590.4	249.7
		Selected ATA Codes	32	225.6	21.2	87.8	37.1
		Instruments	0	0.0	—	0.0	0.0
		Electrical Group	31	224.1	21.7	87.2	36.9
		Engine/Fuel	1	1.5	4.5	0.6	0.2
Ford	RFG	All	241	1162.9	33.8	554.2	179.4
		Selected ATA Codes	118	430.8	25.6	205.3	66.5
		Instruments	1	1.8	12.7	0.9	0.3
		Electrical Group	112	400.2	25.0	190.7	61.7
		Engine/Fuel	6	28.7	33.5	13.7	4.4
	Unleaded	All	121	1530.9	38.0	808.1	236.6
		Selected ATA Codes	54	372.0	20.7	196.4	57.5
		Instruments	1	3.3	9.8	1.7	0.5
		Electrical Group	50	359.0	21.5	189.5	55.5
		Engine/Fuel	3	9.7	9.7	5.1	1.5

<sup>(a)</sup> See Table B-2 for number of vans, service days, and miles driven.

<sup>(b)</sup> All systems include ATA system codes 000 through 079.

Instruments include ATA system code 003.

Electrical Group includes ATA system codes 030 through 035.

Engine/Fuel systems include ATA system codes 040 through 048.

**Table A-7. Non-PM Total Costs<sup>(a)</sup> (Continued)**

Vehicle OEM	Fuel Type	System <sup>(b)</sup>	Total Non-PM ROs	Average Total Cost per Van	Average Total Cost per Non-PM RO	Average Total Cost per 10,000 Miles	Average Total Cost per 100 Service Days
<b>Rialto</b>							
Chevrolet	PRO	All	465	6862.7	103.3	1932.1	1590.3
		Selected ATA Codes	164	3427.6	146.3	965.0	794.3
		Instruments	3	2.1	4.9	0.6	0.5
		Electrical Group	75	641.0	59.8	180.5	148.5
		Engine/Fuel	104	2784.5	187.4	783.9	645.3
	Unleaded	All	183	4760.7	78.0	1228.3	947.5
		Selected ATA Codes	53	1076.6	60.9	277.8	214.3
		Instruments	3	47.6	47.6	12.3	9.5
		Electrical Group	30	412.2	41.2	106.4	82.0
		Engine/Fuel	22	616.8	84.1	159.1	122.8
Ford	PRO	All	648	2245.6	45.0	568.2	430.0
		Selected ATA Codes	254	1014.8	51.9	256.8	194.3
		Instruments	12	9.3	10.1	2.3	1.8
		Electrical Group	104	192.8	24.1	48.8	36.9
		Engine/Fuel	139	812.7	76.0	205.6	155.6
	Unleaded	All	148	1531.7	31.0	360.8	267.7
		Selected ATA Codes	53	495.9	28.1	116.8	86.7
		Instruments	3	15.0	15.0	3.5	2.6
		Electrical Group	34	271.1	23.9	63.9	47.4
		Engine/Fuel	16	209.8	39.3	49.4	36.7

<sup>(a)</sup> See Table B-2 for number of vans, service days, and miles driven.

<sup>(b)</sup> All systems include ATA system codes 000 through 079.

Instruments include ATA system code 003.

Electrical Group includes ATA system codes 030 through 035.

Engine/Fuel systems include ATA system codes 040 through 048.



**Table A-7. Non-PM Total Costs<sup>(a)</sup> (Continued)**

Vehicle OEM	Fuel Type	System <sup>(b)</sup>	Total Non-PM ROs	Average Total Cost per Van	Average Total Cost per Non-PM RO	Average Total Cost per 10,000 Miles	Average Total Cost per 100 Service Days
<b>Santa Ana</b>							
Ford	M-85	All	649	1745.6	53.8	699.1	334.8
		Selected ATA Codes	264	964.2	73.0	386.2	184.9
		Instruments	38	28.8	15.1	11.5	5.5
		Electrical Group	142	193.9	27.3	77.7	37.2
		Engine/Fuel	92	741.5	161.2	297.0	142.2
	Unleaded	All	79	1027.2	39.0	407.3	172.6
		Selected ATA Codes	31	252.1	24.4	100.0	42.4
		Instruments	7	51.5	22.1	20.4	8.6
		Electrical Group	23	186.4	24.3	73.9	31.3
		Engine/Fuel	2	14.2	21.4	5.6	2.4

<sup>(a)</sup> See Table B-2 for number of vans, service days, and miles driven.

<sup>(b)</sup> All systems include ATA system codes 000 through 079.

Instruments include ATA system code 003.

Electrical Group includes ATA system codes 030 through 035.

Engine/Fuel systems include ATA system codes 040 through 048.